



भारत सरकार GOVERNMENT OF INDIA
खान मंत्रालय MINISTRY OF MINES
भारतीय खान ब्यूरो INDIAN BUREAU OF MINES
क्षेत्रीय खान नियंत्रक के कार्यालय
OFFICE OF THE REGIONAL CONTROLLER OF MINES



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No. MRMP/A/13-ORI/BHU/2019-20

दिनांक / Date: 10.10.2019

To

Shri Venkatesan Balasubramanyam,
Nominated Owner, M/s National Aluminium
Company Limited, NALCO Bhawan, P/1,
Nayapalli, Bhubaneswar-751013.

Sub: Modification of Review of Mining Plan of Panchpatmali (Central & North Block) Bauxite Mine over an area of 1315.264 ha in Koraput district of Odisha of M/s National Aluminium Company Limited (NALCO) submitted under Rule-17 (3) of MCR, 2016.

Ref: - i) Your letter no. NBC/D (P)/83 dated 16.08.2019 received on 17.09.2019.
ii) This office letter of even no. dated 17.09.2019.
iii) This office letter of even no. dated 17.09.2019 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.

Sir,

This has reference to the letters cited above on the subject. The draft Modification of Review of Mining Plan along with Progressive Mine Closure Plan has been examined in this office based on site inspection carried out on 30.09.2019 by Shri G. C. Sethi, Deputy Controller of Mines along with Shri Ashok Kumar Pany, Assistant Mining Engineer. The deficiencies observed are enclosed herewith as Annexure-I.

You are advised to carry out the necessary modifications in the draft Modification of Review of Mining Plan in the light of the contents vide Annexure-I and submit **three (3) firm bound and two (2) soft copies of the document text in CD in a single MS Word file (the drawing/plates should be submitted in Auto CAD compatible format and JPG format in resolution of 100x100 pixels on same CD)** with financial assurance under Rule 27 of MCDR' 2017 within 15 (fifteen) days from the date of issue of this letter for further necessary action. If the total page of annexures exceeds 50 (Fifty) then it should be submitted as separate volume. But reference of these annexures must appear in the Modification of Review of Mining Plan document. The plates are also to be submitted in separate volume.

The para-wise clarifications and the manner in which the deficiencies are attended should invariably be given while forwarding the modified copies of the Modification of Review of Mining Plan. It may be noted that no extension of time in this regard will be entertained and the Modification of Review of Mining Plan will be considered for rejection if not submitted within above due date. It may also be noted that if the deficiencies are not attended completely, the submission would be liable for rejection without further correspondence.

भवदीय / yours faithfully,


(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

Copy for kind information and necessary action to:

1. Shri Chandrabhanu Dash, Qualified Person, Geo Consultants Private Limited, Plot No-853, Gobind Prasad (Medical Lane), Mahavir Nagar (Infront of Radhika Complex/Reliance Fresh), Laxmisagar, Bhubaneswar-751006, Odisha.

(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

SCRUTINY COMMENTS ON EXAMINATION OF MODIFICATION OF REVIEW OF MINING PLAN & PROGRESSIVE MINE CLOSURE PLAN FOR PANCHPATMALI BAUXITE MINE (NORTH & CENTRAL BLOCK) OF M/s NALCO LTD., OVER AN EXTENT OF 3250.26 ACRES OR 1315.264 HECTARES, LOCATED IN VILLAGE BHEJAPUT & JUNGLE BLOCK OF KORAPUT DISTRICT OF ODISHA STATE, SUBMITTED UNDER RULE 17(3) OF MCR, 2016 AND RULE 23 OF MCDR, 2017.

- (1) The mine code mentioned in the front cover and other places of the document is not correct, thereby correct mine code allotted for this mine need to be given at relevant places. Besides, the period and validity of mining lease is missing on the front cover and other relevant places in the text of the modification document, which should also be mentioned.
- (2) In the list of the Board of Directors enclosed as annexure-VI, few names of the board of directors are not correctly mentioned, which is a serious concern, thereby all those names & designations should be corrected accordingly.
- (3) The copy of the surveyor's certificate in favour of Shri B.C. Baral, M/s IMFA Ltd., has been enclosed as annexure XI but the employment certificate from M/s NALCO Ltd. in favour of him has not been submitted.
- (4) The copy of the latest environmental monitoring report is stated to be enclosed as annexure-XIII and on examination of the same, it found that, the name of the analytical laboratory who has analysed the data is missing, which is not acceptable. Therefore, all four seasons of data on ambient air, water quality, noise levels & vibrations etc. should be analysed through 3rd party NABL accredited laboratory or Govt. laboratory should be submitted replacing the enclosed one for ease in monitoring.
- (5) The chemical analysis report of ROM bauxite dated 09.03.2016 from NALCO laboratory has been enclosed as annexure-XVII, instead the fresh chemical analysis report from 3rd party NABL accredited laboratory or Govt. laboratory should be submitted.
- (6) The chemical and mineralogical analysis of Bauxite samples from Jawaharlal Nehru Aluminium Research Development and Design Centre has been enclosed as annexure-XVIII but the reports are old and analysed during 2016, thereby fresh reports for the same should be submitted.
- (7) The chemical analysis report for OB/Aluminous laterite is stated to be enclosed as annexure-XIX but the same has not been submitted. Therefore, the chemical analysis report from 3rd party NABL accredited laboratory or Govt. laboratory in support of OB/Aluminous laterite should be submitted.
- (8) The numbering of annexure given in the contents are not matching with that of the enclosures, which should be reconciled.
- (9) A drawing sketch for dry stone check dam has been enclosed as annexure-XX but the very purpose for the same is not known. It is also not known, the location of the mine where such check dams exist or proposed for the future. Therefore, it is advised to depict the existing status for the same if any on the surface plan & all other relevant plates. If such check dams are proposed during the modification period, the same should be marked on the year wise development plan & sections and also in the plate submitted for reclamation plan & PMCP plan. Enclosing such annexure is uncalled for.
- (10) No photographs in support of the quarry/dump/reclamation & rehabilitation /afforestation etc. have been enclosed along with the document, however an extent of 426.89 ha of mined out area has been considered as fully reclaimed & rehabilitated. Therefore, documentary evidences with back-ups for such claim should be submitted.
- (11) The copy of the valid explosive procurement license issued by the competent authority in favour of M/s NALCO Ltd. if any should be submitted. Besides, a copy of the blasters license issued by the competent authority for carrying out blasting operations may also be submitted.

- (12) The approval status of the mining plan/scheme of mining/modification/review of mining plan etc. were approved in different occasions but the copies of such approval letters has not been enclosed. (Page No. 1 & 2)
- (13) (i) The 1st renewal of mining lease was applied over an extent of 1315.362ha but the copy of the such renewal application has not been submitted. Besides, the effective surrendered area is indicated to be for 2087.919ha but no paper in support of such surrender has been enclosed. [Para 2.0(a)]
- (14) The actual achievement status of the boreholes has not been furnished, which should be indicated.[Para 3.3.1]
- (15) The actual development status of the quarry both in north & central blocks has not been given, which should be furnished, location wise, grade variations if any and corrective measures included in the document due to such variations. (Para 3.3.2)
- (16) The reasons for deviation in waste handling during 2018-19 against the approved quantities has not been given, which should be furnished. (Table- 3.3)
- (17) The reasons for deviation in topsoil generation during 2017-18 & 2018-19 against the approved quantities has not been given, which should be furnished. (Table- 3.4)
- (18) The para is silent about the proposed & actual reclamation/backfilling and plantation during 2017-18 to 2018-19, which should be furnished for more informative. (Para 3.3.5)
- (19) The data furnished in tabular form is irreverent to the heading of the table; thereby the data should be reconciled. (Table-3.5)
- (20) Under the heading, future exploration programme, pre-production drilling is proposed, which is not the part of exploration programme, thereby the same is uncalled for and must be erased. (Page No. 29)
- (21) An extent of 239.542ha is considered under unexplored/other lease area but specific information about such area has not been given in the referred table. (Table A1.11)
- (22) In the previous approved mining plan, the reserves were calculated by cross sectional methods considering 109 number of geological cross sections and in the field observations, many of such geological cross sectional areas have already been worked out and reclaimed/backfilled concurrently. So, instead of updating the reserves/resources merely by depleting the productions, the reserves/resources should be re-calculated considering the geological cross sections of the virgin/un-excavated portion of the lease area, which were already proved to be mineralized through boreholes. Accordingly, the plates submitted for geological plan & sections and other relevant plates may also be revised accordingly in addition to the relevant text part of the document. (Table A1.17)
- (23) The generation status of aluminous laterite and topsoil to be calculated separately and necessary corrections / modifications may also be made accordingly. (Table A1.18)
- (24) The geological cross sections area, which have already been worked out and reclaimed /backfilled must be deleted and the tables may be revised accordingly. (Table A1.20 to A1.27)
- (25) Numbering of the chapter **Mining** is missing in the text part, which should reconciled as per the numbering of the chapters given in the contents.
- (26) Nothing has been furnished about the existing status of quarry/dump/reclamation, rehabilitation & afforestation etc., which should be discussed. Likewise, the proposed method of mining may also be revised by giving proposed bench formation status both in overburden & in ore zone, dumping, reclamation & rehabilitation etc. for clarity. If the existing quarries are proposed to be developed /extended, the same may also be furnished. In the light of the above; the entire para may be revised. [Page No. 49, (A)(a)]

(27) In the table furnished, under the heading **Insitu Tentative Excavation**: The following observations are made: (i) The proposed generation status of aluminous laterite including topsoil has been furnished in tabular form, instead both should be differentiated. (ii) Bench/RL of the excavation planning has not been given, which should also be furnished by adding one more column in the table. (iii) The location co-ordinates of the excavation planning for each year also not furnished and the same may also be given by adding one more column in the table with proper plate reference. (v) The grades of Bauxite and aluminous laterite /waste may also be furnished supported by authenticated chemical analysis report from 3rd party NABL. Accordingly, corresponding incorporations /modifications may also be made in connected paras in the text & relevant plates. (Table A2.1 to A2.5)

(28) In item No. 1, (f) column of the table-8.17 furnished in the para under reference, an extent of 426.89ha of area is considered as fully reclaimed and rehabilitated, out of the total extent of 620.760ha during the modification period from 2019-20 to 2021-22, whereas, in the original review of mining plan approved on 11.11.2016 for five years period from 2017-18 to 2021-22, an extent of 294.74ha has considered as fully reclaimed & rehabilitated, out of total extent of 546.375ha. When, there is no enhancement of production during the modification period, why additional area requirement as well as reclaimed and rehabilitated area proposal has been increased should be explained. Accordingly, the financial assurance calculations may also be revised. (Para 8.6)

(29) Plate-I (Key Plan): The details of the deficiencies found on the plate are as follows: (i) Index reference for 5km radius has not been marked, which should be depicted. (ii) Air, noise & water monitoring stations within the lease area has not been proposed adequately. (iii) The prominent features such as forest, nala/river/water body, public road and any other features existing within the drawn radius of 5km may also be clearly depicted with the necessary index reference.

(30) Plate-III (Surface Plan): (i) There are many unwanted notation depicted on the surface plan, which make the plate sketchy, instead necessary depiction should be made on the plate for ease in monitoring. (ii) The existing status of quarries & benches, reclamation, rehabilitation and plantation etc. are not properly marked, which should be done. Accordingly, other relevant plates may also be revised. In the surface plan the existing quarry should be mark prominently. As the mine have surface right over full area, the index & features depicted for surface right area demarcation should be omitted. The forest area should be marked with a continuous line instead of hatching.

(31) Plate-IV (Geological Plan): (i) Lithology of many geological features have not been marked properly. (ii) The locations of many of the geological sections are already excavated but the same have been repeatedly considered for reserves estimation, which is not correct. Therefore, all such cross sections should be removed. Accordingly, all the geological sections and other relevant plates submitted may also be revised. (iii) Complete lithology of all bore in the geological section should be furnished. The litho units and the ore zone should be depicted on plan & sections based on surface exposure and exploration data. All these information should be reflected on geological plan and section. The mineralized and non-mineralized area should be marked clearly.

(32) Plate-VII (Reclamation Plan): Many of the proposed features given in the index is not matching with the plan portion of the plate, thereby the plate should be revised in such a way that, the features given in the index will match with the plan portion of the plate. Accordingly, the plates submitted for progressive mine closure plan and financial assurance plan may also be revised.

(33) The plate for DGPS map and geo-referenced map have not been submitted along with the document.